

REMARKS

Claims 1-5 and 7-13 are pending in the present application.

Drawings

The drawings have been objected to because they include reference characters 12b and 13b not mentioned in the description.

Applicants respectfully submit that reference numerals 12b and 13b are described in page 25, lines 12-13 of the original specification and in page 15, paragraph [0086] of the substitute specification submitted on June 8, 2006.

In view of this, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections - 35 U.S.C. § 112

Claims 11-13 have been rejected under 35 U.S.C. § 112, second paragraph, because of some informalities.

Claims 11-13 have been amended, as suggested by the Examiner, to overcome this rejection.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1-3, 5, and 8-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakashima et al. (USP 6,364,354). This rejection is respectfully traversed.

In page 5 of the Office Action, the Examiner alleges that:

In regards to claims 1, 5, and 9, Nakashima et al. discloses the claimed invention except for the retainer being located within the second chamber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the sealing tape within the second combustion chamber, since it has been held that rearranging parts of an invention involves only routine skill in the art.

Applicants respectfully disagree.

According to MPEP § 2143.01 (Suggestion or Motivation To Modify the References),

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or modification to make the proposed modification. *In re Gordon*, 733 F2d 900, 211 USPQ 1125 (Fed. Cir. 1984).

It is known in the art that when a wall defining a hole is provided between a first chamber and a second chamber, and a pressure in the first chamber is increased with respect to the second chamber, a higher pressure is required to destroy the seal tape when the seal tape is attached to a surface of the a wall facing the first chamber as compared to when the seal tape is attached to a surface facing the second chamber. This is because when the seal tape is attached to the surface facing the first chamber, the seal tape is pressed against the surface due to the pressure, whereas when the seal tape is attached to the surface facing the second chamber, the pressure acts on the seal tape in a direction that removes the tape from the surface.

Further, in Nakashima, the “seal tape 11 needs to be adjusted on its material and a thickness so that the seal tape 11 is not ruptured due to the combustion of the gas generating agent 9a in the first combustion chamber 5a, but ruptured when the gas generating agent 9b in the second combustion chamber 5b is burnt” (see col. 17, lines 62-67). As such a seal tape,

Nakashima only teaches a stainless seal tape having a thickness of 40 μm (see col. 17, line 37 - col.18, line 1).

Therefore, if the seal tape 11 having the foregoing specification is attached to the inner surface of the cylindrical member 4 rather than to the outer surface, the seal tape would be destroyed more easily by an increase of pressure inside the first combustion as compared to when the seal tape is attached to an outer surface of the cylindrical member 4 as shown in Fig. 1 of Nakashima.

In view of this, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness because the proposed modification would render Nakashima being modified unsatisfactory for its intended purpose.

Further, even assuming that it would have been obvious to one skilled in the art to make the foregoing modification, the seal tape of Nakashima does not form “a space defined by the retainer and the cylindrical partition wall,” as recited in claim 1.

Moreover, the modification alleged by the Examiner would render the resulting inflator dangerous and unacceptable to the industry.

It is known to a person skilled in the art that a dual-type inflator is intended to obtain multiple modes of deployment of an air bag; e.g., (1) ignition of only the gas generants in a first combustion chamber in a low-speed impact; (2) ignition of gas generants in the first combustion chamber, and then with a little delay, ignition of gas generants in a second combustion chamber in an intermediate speed impact; and (3) simultaneous ignition of gas generants in the first and second combustion chambers in a high-speed impact.

Nakashima shows the first mode of operation in col. 17, lines 62-67.

If a seal tape is attached to a second combustion chamber as alleged by the Examiner, the combustion pressure in the first combustion chamber will remove the seal tape and, as a result, gas in the first combustion chamber will ignite the gas generants in the second combustion chamber, thus failing to attain the first mode (1) of operation. As a consequence, an excess amount of gas will flow into an air bag and a passenger is likely to receive a damage; an excessive shock due to a rapid inflation of the air bag. This is also one of the reasons why the Examiner's modification of Nakashima is not acceptable.

In the second mode (2), delay of 30 milliseconds is required. However, the gas in the first combustion chamber flows into the second combustion chamber, as described above, and the intended delay cannot be obtained. In other words, the gas generants in the second combustion chamber will burn before the required delay. In this case, the passenger also may suffer a similar damage.

Applicants respectfully submit that, at least for the reasons stated in the foregoing, modification of Nakashima as alleged by the Examiner is unreasonable.

Claims 2, 3, 10, 11, and 13, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claims 5 and 9 are allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

Claims 8 and 10, dependent on claim 5, are allowable at least for their dependency on claim 5.

Claims 12 and 13, dependent on claim 9, are allowable at least for their dependency on claim 9.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claim 4 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakashima in view of DiGiacomo et al. (USP 6,447,007). This rejection is respectfully traversed.

Claim 4, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakashima in view of Fukuma et al. (USP 3,950,263). This rejection is respectfully traversed.

Claim 7, dependent on claim 5, is allowable at least for its dependency on claim 5.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.

The Examiner is respectfully requested to enter this Reply After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Reply After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the

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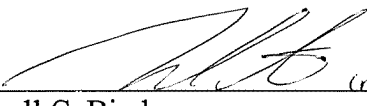
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telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

for By  (reg. # 42,411)
Terrell C. Birch
Registration No.: 19,382
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant